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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/805,748	03/13/2001	Srinivas Gutta	US 010064	2712

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EXAMINER	
FLETCHER, JAMES A	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/805,748	GUTTA ET AL.	
	Examiner	Art Unit	
	James A. Fletcher	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12, 14-42, and 44-60* is/are rejected.

7)☒ Claim(s) *13 and 43* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 4-10, 14-17, 19-32, 34-40, 44-47, and 49-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Martino et al (6,473,095) and Dimitrova et al (6,137,544), which is incorporated by reference by Martino et al (Col 1, line 44 where application Ser. No. 08/867,140 corresponds to the referenced Dimitrova et al patent).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1 and 31, Dimitrova et al disclose a system and method for processing video source frames within a display device (Col 3, lines 18-19 "Signals from the source video are received by a television, a VCR or other processing device"), comprising:

- a video frame extraction algorithm within the display system that dynamically and non-contiguously extracts key frames from the video source frames during execution of the video source frames (Col 3, lines 23-26 "a host processor...performs significant scene detection and keyframe selection");
- a processor within the display system that executes the video source frames and executes the video source frame extraction algorithm (Col 3, lines 23-26 "a host processor...performs significant scene detection and keyframe selection");
- a video input device within the display system that receives the video source frames from a video source, wherein the video input device is coupled to the processor (Col 3, lines 17-18 "Signals from the source video are received by a television, a VCR or other processing device");
- a memory structure within the display system that is coupled to the processor (Fig. 2A, item 234 "Frame Memory" is shown coupled to item 230 "Significant Scene Processor");
- wherein a first memory of the memory structure within the display system stores the extracted key frames (Col 3, lines 23-28 "a host processor...stores keyframes as a data structure in a memory"); and
- a terminating mechanism that terminates extraction of the key frames prior to completion of execution of the video source frames (Col 3, lines 39-42 "if the tape, or file, is not completely recorded on at one time, a partially created video index could be saved on the tape, file, etc.").

Regarding claims 2, 4, 5, 32, 34, and 35, Dimitrova et al disclose a system and method for processing video source frames wherein the first memory includes a temporary or permanent memory, and includes forms of those memories (Col 4, lines 35-38 "an index memory, such as, for example, a hard disk, file, tape, DVD, or other storage medium" The examiner notes that such media are well known to those of ordinary skill in the art to be useful for both temporary and permanent storage of data.).

Regarding claims 6 and 36, Dimitrova et al disclose a system and method for processing video source frames comprising a recording mechanism that records in the first memory an indication of a video source frame being executed when the extraction of key frames is terminated (Fig 1 illustrates a flow chart that indicates the recording of keyframe data to a tape memory as a final step in the acquisition of keyframe data).

Regarding claims 7 and 37, Martino et al disclose a system and method for processing video source frames wherein the recording mechanism records the indication in a special key frame that is appended to the extracted key frames in the first memory (Col 4, lines 21-22 "A program boundary is placed between H_7 and H_6 in accordance with box 209 [sic] of FIG. 2").

Regarding claims 8 and 38, Dimitrova et al disclose a system and method for processing video source frames wherein the terminating is triggered by action of a user-controlled device (Col 13, lines 44-46 "An additional feature would allow a user to stop the playing of a video tape at any point and access the visual index for that video tape").

Regarding claims 9 and 39, Dimitrova et al disclose a system and method for processing video source frames wherein the user-controlled device includes a user

input that is coupled to the processor (Col 2, lines 42-44 "the selected area for the visual index may occur anywhere in the file, and may be reserved by a system automatically or manually selected by a user").

Regarding claims 10 and 40, Dimitrova et al disclose terminating the processing of video source frames when a predetermined condition has occurred (Col 3, lines 40-43 "if the tape, or file, is not completely recorded on at one time, a partially created video index could be saved on the tape, file, etc. or could be saved in a tape memory for later additions").

Regarding claims 14 and 44, Dimitrova et al disclose a system and method for processing video source frames comprising an output display through which a user may review the extracted key frames, wherein the output display is coupled to the processor (Col 13, lines 21-24 "the host processor 210 in step 808 which writes the processed keyframes to display memory and displays them in a user interface such as a computer display, television screen, etc.").

Regarding claims 15 and 45, Dimitrova et al disclose a system and method for processing video source frames wherein the output display includes a television screen or a computer monitor (Fig 4 shows the output display as being available on either a television screen 412 or a computer monitor 410).

Regarding claims 16-18 and 46-48, Dimitrova et al disclose a system and method for processing video source frames wherein the system permits review of the key frames prior to, when, or after completion of execution of the video source frames, or before the terminating mechanism terminates extracting the key frames (Col 3, lines

39-42 "if the tape, or file, is not completely recorded on at one time, a partially created video index could be saved on the tape, file, etc., or could be saved in a tape memory for alter additions" and Col 9, lines 44-46 "Keyframe filtering...may be performed as each frame is processed under the significant scene detection process or after all the frames have been processed").

Regarding claims 19 and 49, Yeo et al disclose a system and method for processing video source frames wherein the system permits review of the key frames upon or after completion of execution of the video source frames (Col 12, lines 66-67 "Once a video tape or file has a visual index, a user may wish to access the visual index").

Regarding claims 20 and 50, Dimitrova et al disclose a system and method for processing video source frames comprising an erasing mechanism that erases the key frames from the first memory at or after completion of review of the key frames by the user (Col 10, lines 38-40 "using block signatures, specific images or frames may be filtered out from the visual index").

Regarding claims 21 and 51, Dimitrova et al disclose a system and method for processing video source frames wherein the erasing mechanism is triggered by action of the user (Col 12, lines 29-31 "The present invention allows the user to choose whether to include keyframes from the commercials as part of the visual index or instead, exclude those keyframes").

Regarding claims 22 and 52, Dimitrova et al disclose a system and method for processing video source frames comprising a user input device for user manipulation

(Col 13, lines 44-46, "An additional feature would allow a user to stop the playing of a video tape at any point and access the visual index for that video tape").

Regarding claims 23-24 and 53-54, Dimitrova et al disclose a system and method for processing video source frames wherein the erasing mechanism is triggered when a predetermined condition has occurred, if that condition includes completion of execution of the video source frames (Col 9, lines 44-46, "Keyframe filtering...may be performed...after all the frames have been processed").

Regarding claims 25 and 55, Dimitrova et al disclose a system and method for processing video source frames wherein the predetermined condition includes an elapsed of a predetermined amount of time following the review of the key frames (Col 6, lines 22-25 "When the counte3r reaches a predetermined number...the most previous video frame saved in the temporary memory is transferred to the frame memory").

Regarding claims 26 and 56, Dimitrova et al disclose a system and method for processing video source frames comprising a second memory of the memory structure and a transferring mechanism, wherein the transferring mechanism transfers the key frames from the first memory to the second memory (Col 3, lines 31-32 "the data structure is transferred from the memory to the source tape.").

Regarding claims 27 and 57, Dimitrova discloses deleting the key frames from the first memory after the transferring mechanism completes transfer of the key frames from the first memory to the second memory (Col 3, lines 31-32 "the data structure is transferred from the memory to the source tape." The examiner notes that the transfer

of data or any other object implies the movement of that data or object from a source to a destination, and that the source no longer has the original data or object. If such a loss of the object from the source were intended, the term "copy" would be appropriate to the movement of data.)

Regarding claims 28 and 58, Dimitrova et al disclose a system and method for processing video source frames wherein the video frame extraction algorithm comprises a content-based method of video frame extraction (Col 5, lines 14-15 "The present invention may use several different significant scene detection methods").

Regarding claims 29 and 59, Dimitrova et al disclose a system and method for processing video source frames wherein the content-based method includes a keyframe scene detection method (Col 5, lines 27-40 describe "Method One"), a Method Two keyframe scene detection method (Col 6, lines 32-49 describe "Method Two"), a Method Three keyframe scene detection method (Col 7 lines 23-39 describe "Method Three"), and a Method Four keyframe scene detection method (Col 8, lines 19-45 describe "Method Four").

Regarding claims 30 and 60, Dimitrova et al disclose a system and method for processing video source frames wherein the video frame extraction algorithm comprises a content-independent method of video frame extraction (Col 6, lines 22-25 "When the counter reaches a predetermined number...the most previous video frame saved in the temporary memory is transferred to the frame memory").

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martino et al and Dimitrova et al.

Regarding claims 3 and 33, Dimitrova et al suggest but do not specifically disclose a system and method for processing video source frames wherein the temporary memory includes a random access memory (RAM) (Col 6, lines 4-7 "The frame memory may be a tape, a disk...or any other storage medium, external or internal to the present system).

The examiner takes official notice that a random access memory is a well known, widely used and commercially available means of temporary storage of data, and would provide an inexpensive and easily understood means of storing such data.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Dimitrova et al to specify a random access memory for temporary storage of data.

Regarding claims 11-12 and 41-42, Dimitrova et al disclose a system and method for terminating the viewing of key frames at after a predetermined time has passed (Col 3, lines 40-43 "if the tape, or file, is not completely recorded on at one time, a partially created video index could be saved on the tape, file, etc. or could be saved in a tape memory for later additions").

The examiner takes official notice that a predetermined fraction of the video source frames, and a predetermined number of video source frames are both well known and widely used techniques of determining the passage of time in an audio/visual program.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Yeo et al to indicate the predetermined condition by a percentage of the incoming program or a count of incoming frames.

Allowable Subject Matter

5. Claims 13 and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAF
24 January 2006

James J. Groody
Supervisory Patent Examiner
Art Unit 2616